MUNDOCLIMA®

INVERTER SERIES H3

User and installation manual

MUPR-H3



CL 20 801 a CL 20 804
English

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USER´S MANUAL

Before using your air conditioner, please read
this manual carefully and keep it for future reference..

INVERTER SPLIT-TYPE ROOM AIR CONDITIONER

The design and specifications are subject to change without prior notice for
product improvement. Consult with the sales agency or manufacturer for details.

Read This Manual:

Inside you will find many helpful hints on how to use and maintain your air conditioner properly.
Just a little preventative care on your part can save you a great deal of time and money over the life of your air conditioner.
You'll find manyanswers to common problems in the chart of troubleshooting tips. If you review the chart of Troubleshooting Tips first, you may not need to call for service.

⚠ CAUTION

- Contact an authorised service technician for repair or maintenance of this unit.
- Contact the authinstaller for installation of this unit.
- This appliance is not intended for use by persons(including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Young children should be supervised to ensure that they do not play with the air conditioner.
- If the power cord is to be replaced, replacement work shall be performed by authorised personnel only.
- Installation work must be performed in accordance with the national wiring standards by authorised personnel only.

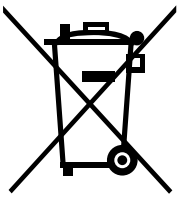
When using this air conditioner in the European countries, the following informations must be followed:

DISPOSAL: Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

It is prohibited to dispose of this appliance in domestic household waste.
For disposal, there are several possibilities:

A) The municipality has established collection systems, where electronic waste can be disposed of at least free of charge to the user.
B) When buying a new product, the retailer will take back the old product at least free of charge.
C) The manufacture will take back the old appliance for disposal at least free of charge to the user.
D) As old products contain valuable resources, they can be sold to scrap metal dealers.

Wild disposal of waste in forests and landscapes endangers your health when hazardous substances leak into the ground-water and find their way into the food chain.



To prevent injury to the user or other people and property damage, the following instructions must be followed. Incorrect operation due to ignoring of instructions may cause harm or damage. The seriousness is classified by the following indications.

⚠WARNING	This symbol indicates the possibility of death or serious injury.
⚠ CAUTION	This symbol indicates the possibility of injury or damage to property.

■ Meanings of symbols used in this manual are as shown below.

⃠	Never do this.
!	Always do this.

⚠ WARNING

Connect with the power properly.
- Otherwise, it may cause electric shock or fire due to excess heat generation.

Do not operate or stop the unit by switching on or off the power.
- It may cause electric shock or fire due to heat generation.

Do not damage or use an unspecified power cord.
- It may cause electric shock or fire.

Do not modify power cord length or share the outlet with other appliances
- It may cause electric shock or fire due to heat generation.

Do not operate with wet hands or in damp environment.
- It may cause electric shock.

Do not direct airflow at room occupants only.
- This could damage your health.

Always ensure effective earthing.
- No earthing may cause electric shock.

Do not allow water to run into electric parts.
- It may cause failure of machine or electric shock.

Always install circuit breaker and a dedicated power circuit.
- No installation may cause fire and electric shock.

Disconnect the power if strange sounds, smell, or smoke comes from it.
- It may cause fire and electric shock.

Do not drink water drained from air conditioner.
- It contains contaminants and could make you sick.

Do not open the unit during operation.
- It may cause electric shock.

Use the correctly rated breaker or fuse.
- There is risk of fire or electric shock.

Do not use the power cord close to heating appliances.
- It may cause fire and electric shock.

Do not disassemble or modify unit.
- It may cause failure and electric shock.

Ventilate room before operating air conditioner if there is a gas leakage from another appliance.
- It may cause explosion, fire and, burns.

Do not use the power cord near flammable gas or combustibles, such as gasoline, benzene, thinner, etc.
- It may cause an explosion or fire.

⚠ CAUTION

⊘ When the air filter is to be removed, do not touch the metal parts of the unit.

- It may cause an injury.

⊘ Do not clean the air conditioner with water.

- Water may enter the unit and degrade the insulation. It may cause an electric shock.

ⓘ Ventilate the room well when used together with a stove, etc.

- An oxygen shortage may occur.

ⓘ When the unit is to be cleaned, switch off, and turn off the circuit breaker.

- Do not clean unit when power is on as it may cause fire and electric shock, it may cause an injury.

⊘ Do not put a pet or house plant where it will be exposed to direct air flow.

- This could injure the pet or plant.

⊘ Do not use for special purposes.

- Do not use this air conditioner to preserve precision devices, food, pets, plants, and art objects. It may cause deterioration of quality, etc.

ⓘ Stop operation and close the window in storm or hurricane.

- Operation with windows opened may cause wetting of indoor and soaking of household furniture.

⊘ Do not place obstacles around air-inlets or inside of air-outlet.

- It may cause failure of appliance or accident.

ⓘ Turn off the main power switch when not using the unit for a long time.

- It may cause failure of product or fire.

⊘ Do not use strong detergent such as wax or thinner. Use a soft cloth for cleaning.

- Appearance may be deteriorated due to change of product color or scratching of its surface.

ⓘ Ensure that the installation bracket of the outdoor appliance is not damaged due to prolonged exposure.

- If bracket is damaged, there is concern of damage due to falling of unit.

ⓘ Always insert the filters securely. Clean filter once every two weeks.

- Operation without filters may cause failure.

⊘ Do not place heavy object on the power cord and take care so that the cord is not compressed.

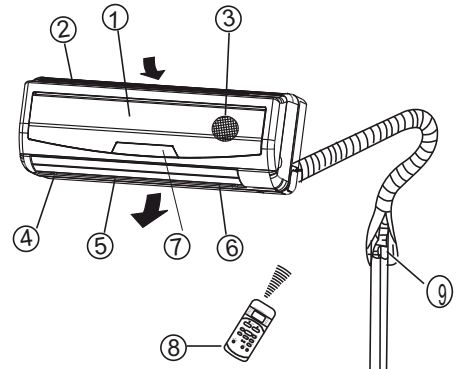
- There is danger of fire or electric shock.

ⓘ Use caution when unpacking and installing. Sharp edges could cause injury.

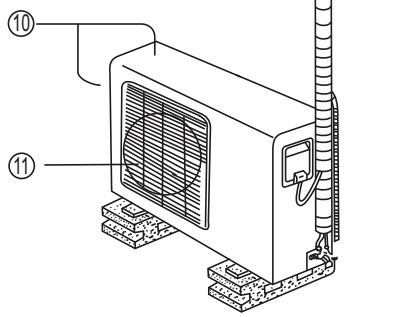
ⓘ If water enters the unit, turn the unit off and disconnect the power , contact a qualified service technician.

Parts names

Indoor unit



Outdoor unit



Indoor unit

1. Front panel
2. Air inlet
3. Air filter
4. Air outlet
5. Horizontal air flow grille
6. Vertical air flow louver
7. Display panel
8. Remote controller

Outdoor unit

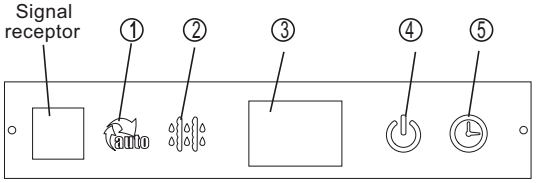
9. Connecting pipe, drain hose
10. Air inlet (side and rear)
11. Air outlet

NOTE:
All the pictures in this manual are for explanation purpose only. Your air conditioner may be slightly different. The actual shape shall prevail.

Indicator Lights on Display panel

The display panel on the indoor unit would look like one of the following:

For cooling only models(≥21000Btu/h unit), ② indicator light is FAN ONLY.



① AUTO indicator:
This indicator illuminates when the air conditioner is in AUTO operation.

② DEFROST Indicator
(For cooling& heating model only):
This indicator illuminates when the air conditioner starts defrosting automatically or when the warm air control feature is activated in heating operation.

③ DIGITAL DISPLAY:
Displays the current setting temperature or malfunction code when the air conditioner is in operation.

④ OPERATION indicator:
The indicator flashes once every second after power is on and illuminates when the air conditioner is in operation.

⑤ TIMER indicator:
The indicator illuminates when TIMER is set ON/OFF.

NOTE: This manual does not include Remote Controller Operations, see the <<Remote Controller Instruction>> packed with the unit for details.

Operating temperature

Mode / Temperature	Cooling operation	Heating operation	Drying operation
Room temperature	≥17℃(62℉)	≤30℃(86℉)	＞10℃(50℉)
Outdoor temperature	0℃~50℃ (32℉~122℉)	-15℃~30℃ (5 ℉~ 86 ℉)	0℃~50℃ (32℉~122℉)
	-15°C~50°C/5°F~122°F (For the models with low temperature cooling system)		

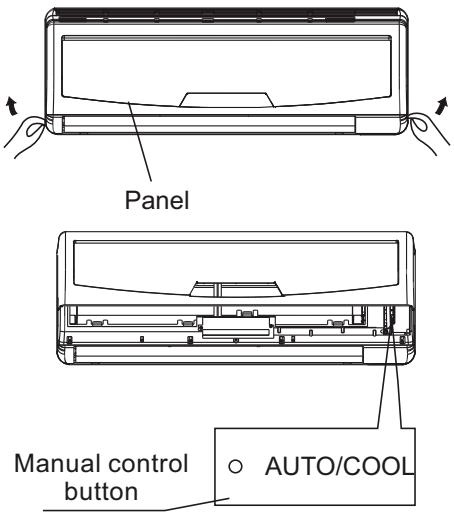
CAUTION:

1. If air conditioner is used outside of the above conditions, certain safety protection features may come into operation and cause the unit to function abnormally.
2. Room relative humidity less than 80%. If the air conditioner operates in excess of this figure, the surface of the air conditioner may attract condensation. Please sets the vertical air flow louver to its maximum angle (vertically to the floor), and set HIGH fan mode.
3. Optimum performance will be achieved within these operating temperature.

Suggestion: For the unit adopts an Electric Heater, when the outside ambient temperature is below 0°C(32°F), we strongly recommend you to keep the machine plugged in order to guarantee it running smoothly.

Manual operation

Manul operation can be used temporarily in case the remote controller is disable or maintenance necessary.



NOTE: The unit must be turned off before operating the manual control button. If the unit is operational, continue pressing the manual control button until the unit is off.

① Open and lift the front panel up to an angle until it remains fixed with a clicking sound.

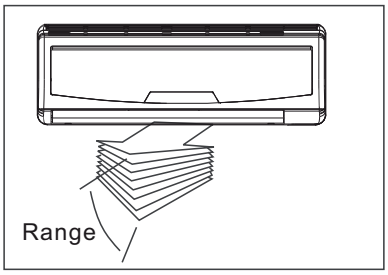
② One press of the manual control button will lead to the forced AUTO operation. If press the button twice within five seconds, the unit will operate under forced COOL operation.

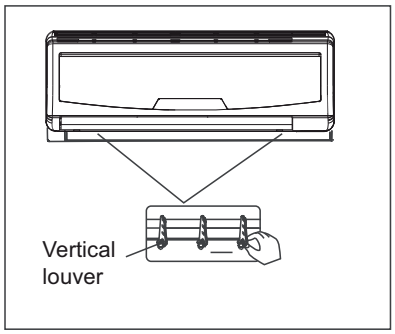
③ Close the panel firmly to its original position.

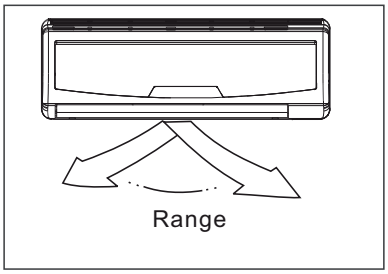
CAUTION:

- This button is used for testing purposes only. You had better not choose it.
- To restore the remote controller operation, use the remote controller directly.

Airflow direction control







- Adjust the air flow direction properly otherwise, it might cause discomfort or cause uneven room temperatures.
- Adjust the horizontal louver using the remote controller.
- Adjust the vertical louver manually.

To set the vertical air flow(Up--Down) direction

Perform this function while the unit is in operation. Use the remote controller to adjust the air flow direction. The horizontal louver can be moved at a range of 6° for each press, or swing up and down automatically. Please refer to the''REMOTE CONTROLLER OPERATION MANUAL'' for details.

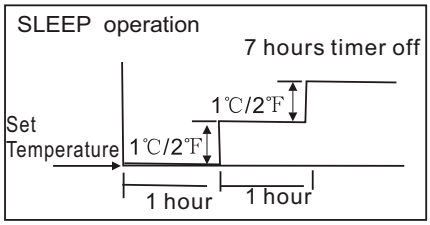
To set the horizontal air flow direction (left - right)

- Move the vertical louver manually to adjust the air flow in the direction you prefer.
  IMPORTANT : Before adjusting the vertical louvers, the supply power must be disconnected.
- For some models, the vertical louver can be adjusted by using the remote controller. Please refer to the '' REMOTE CONTROLLER OPERATION MANUAL'' for details.

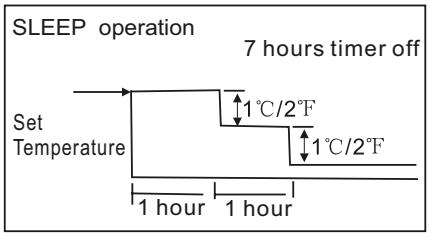
⚠ CAUTION

- Do not operate the air conditioner for long periods with the air flow direction set downward in cooling or dehumidifying mode. Otherwise, condensation may occur on the surface of the horizontal louver causing moisture to drop on to the floor or on furnishings.
- Do not move the horizontal louver manually unless it is necessary. Always use the remote controller.
- When the air conditioner is started immediately after it was stopped, the horizontal louver might not move for approximately 10 seconds.
- Open angle of the horizontal louver should not be set too small, as COOLING or HEATING performance may be impaired due to too restricted air flow area.
- Do not operate unit with horizontal louver in closed position.
- When the air conditioner is connected to power (initial power), the horizontal louver may generate a sound for 10 seconds, this is a normal operation.

How the air conditioner works



Cooling



Heating

AUTO operation

- When you set the air conditioner in AUTO mode, it will automatically select cooling, heating(cooling/heating models only), or fan only operation depending on what temperature you have selected and the room temperature.
- The air conditioner will control room temperature automatically round the temperature point set by you.
- If the AUTO mode is uncomfortable, you can select desired conditions manually.

SLEEP operation

When you push SLEEP button on remote controller during cooling, heating(cooling & heating models only), or AUTO operation , the air conditioner will automatically increase (cooling) or decrease (heating) 1℃/2℉ per hour for the first 2 hours, then hold steady for the next 5 hours, after that it will switch off. This characteristic maintains both enery saving and comfort in night operation.

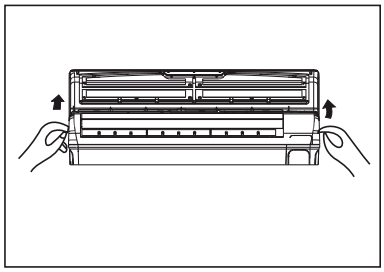
DRYING operation

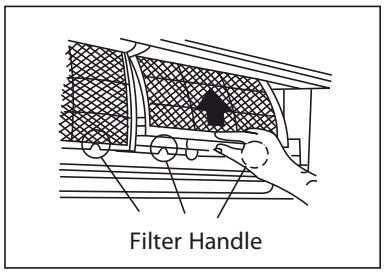
- The fan speed will be automatically controlled under dry operation.
- During the dry operation, if the room temperature is lower than 10°C(50°F), the compressor stops operation and restarts until the room temperature is above 12°C(54°F).

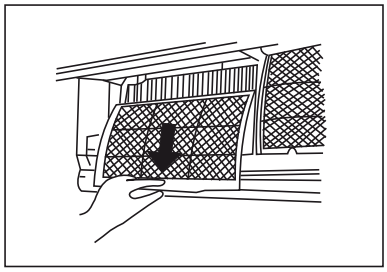
Optimal operation

- To achieve optimal performance, please note the following:
- Adjust the air flow direction correctly so that it is not directed on people.
- Adjust the temperature to achieve the highest comfort level. Do not adjust the unit to excessive temperature levels.
- Close doors and windows on COOL or HEAT modes, or performance may be reduced.
- Use TIMER ON button on the remote controller to select a time you want to start your air conditioner.
- Do not put any object near air inlet or air outlet, as the efficiency of the air conditioner may be reduced and the air conditioner may stop running.
- Clean the air filter periodically, otherwise cooling or heating performance may be reduced.
- Do not operate unit with horizontal louvre in closed position.

Care and maintenance







Cleaning the Grille, Case and Remote Controller

- Turn the system off before cleaning. To clean, wipe with a soft, dry cloth. Do not use bleach or abrasives.

NOTE: Supply power must be disconnectd before cleaning the indoor unit.

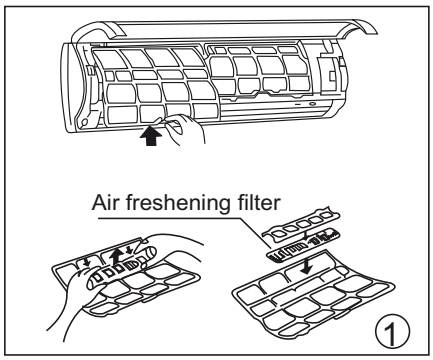
⚠ CAUTIONS

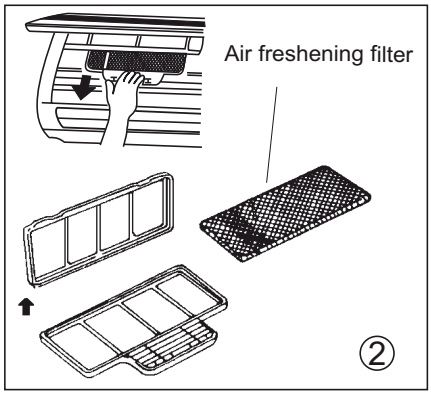
- A cloth dampened with cold water may be used on the indoor unit if it is very dirty. Then wipe it with a dry cloth.
- Do not use a chemically treated cloth or duster to clean the unit.
- Do not use benzine, thinner, polishing powder, or similar solvents for cleaning. These may cause the plastic surface to crack or deform.
- Never use water hotter than 40°C/104°F to clean the front panel, it could cause deformation of discoloration.

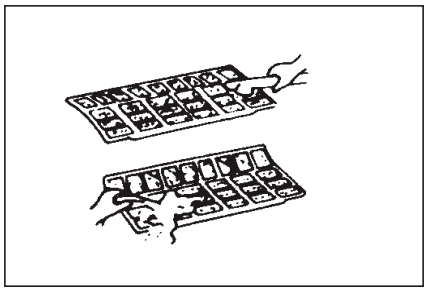
Cleaning the air filter

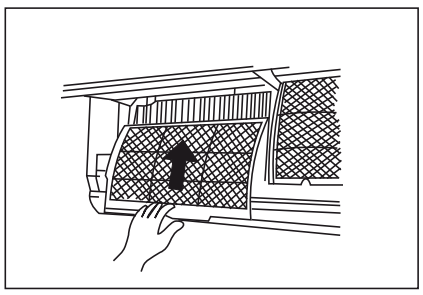
A clogged air filter reduces the cooling efficiency of this unit. Please clean the filter once every 2 weeks.

1. Lift the indoor unit panel up to an angle until it stops with a clicking sound.
2. Take hold of the handle of the air filter and lift it up slightly to take it out from the filter holder, then pull it downwards.
3. Remove the AIR FILTER from the indoor unit.
   - Clean the AIR FILTER once two weeks.
   - Clean the AIR FILTER with a vacuum cleaner or water, then dry it up in cool place.









4. Remove the Air Freshening Filter from its support frame (on some models).
   (The optional filter include :Plasma Dust Collector/ Silver Ion filter /Bio filter /Vitamin C filter/3M air purifier filter, etc. The removing and installation methods are slightly different, see the pictures marked ① and ② on the left.
   - Clean the air freshening filter at least once a month, and replace it every 4-5 months.
   - Clean it with vacuum cleaner, then dry it in cool place.

⚠ Do not touch the Plasma Dust Collector Filter within 10 minutes after opening the front panel, it may cause an electric shock.

5. Install the air freshening filter back into position.
6. Insert the upper portion of air filter back into the unit, taking care that the left and right edges line up correctly and place filter into position.

Maintenance

If you plan to idle the unit for a long time, perform the following:

(1) Operate the fan for about half a day to dry the inside of the unit.
(2) Stop the air conditioner and disconnect power. Remove the batteries from the remote controller.
(3) The outdoor unit requires periodic maintenance and cleaning. Do not attempt to do this yourself. Contact your dealer or servicer.

Checks before operation

- Check that the wiring is not broken off or disconnected.
- Check that the air filter is installed.
- Check if the air outlet or inlet is blocked after the air conditioner has not been used for a long time.

⚠ Caution

- Do not touch the metal parts of the unit when removing the filter. Injuries can occur when handling sharp metal edges.
- Do not use water to clean inside the air conditioner. Exposure to water can destroy the insulation, leading to possible electric shock.
- When cleaning the unit, first make sure that the power and circuit breaker are turned off.

The following events may occur during normal operation.

1. Protection of the air conditioner.

   Compressor protection

   - The compressor can't restart for 3 minutes after it stops.

   Anti-cold air (Cooling and heating models only)

   - The unit is designed not to blow cold air on HEAT mode, when the indoor heat exchanger is in one of the following three situations and the set temperature has not been reached.
     A) When heating has just starting.
     B) Defrosting.
     C) Low temperature heating.
   - The indoor or outdoor fan stop running when defrosting (Cooling and heating models only).

   Defrosting (Cooling and heating models only)

   - Frost may be generated on the outdoor unit during heat cycle when outdoor temperature is low and humidity is high resulting in lower heating efficiency of the air conditioner.
   - During this condition air conditioner will stop heating operation and start defrosting automatically.
   - The time to defrost may vary from 4 to 10 minutes according to the outdoor temperature and the amount of frost build up on the outdoor unit.

2. A white mist coming out from the indoor unit
   - A white mist may generate due to a large temperature difference between air inlet and air outlet on COOL mode in an indoor environment that has a high relative humidity.
   - A white mist may generate due to moisture generated from defrosting process when the air conditioner restarts in HEAT mode operation after defrosting.

3. Low noise of the air conditioner
   - You may hear a low hissing sound when the compressor is running or has just stopped running. This sound is the sound of the refrigerant flowing or coming to a stop.
   - You can also hear a low "squeak" sound when the compressor is running or has just stopped running. This is caused by heat expansion and cold contraction of the plastic parts in the unit when the temperature is changing.
   - A noise may be heard due to louver restoring to its original position when power is first turned on.

4. Dust is blown out from the indoor unit.
   This is a normal condition when the air conditioner has not been used for a long time or during first use of the unit.

5. A peculiar smell comes out from the indoor unit.
   This is caused by the indoor unit giving off smells permeated from building material, from furniture, or smoke.

6. The air conditioner turns to FAN only mode from COOL or HEAT (For cooling and heating models only) mode.
   When indoor temperature reaches the temperature setting on air conditioner, the compressor will stop automatically, and the air conditioner turns to FAN only mode. The compressor will start again when the indoor temperature rises on COOL mode or falls on HEAT mode (For cooling and heating models only) to the set point.

7. Dripping water may generate on the surface of the indoor unit when cooling in a high relatively humidity (relative humidity higher than 80%). Adjust the horizontal louver to the maximum air outlet position and select HIGH fan speed.

8. Heating mode (For cooling and heating models only)
   The air conditioner draws in heat from the outdoor unit and releases it via the indoor unit during heating operation. When the outdoor temperature falls, heat drawn in by the air conditioner decreases accordingly. At the same time, heat loading of the air conditioner increases due to larger difference between indoor and outdoor temperature. If a comfortable temperature can't be achieved by the air conditioner, we suggest you use a supplementary heating device.

9. Auto-restart function
   Power failure during operation will stop the unit completely.
- For the unit without Auto-restart feature, when the power restores, the OPERATION indicator on the indoor unit starts flashing. To restart the operation, push the ON/OFF button on the remote controller. For the unit with Auto-restart feature, when the power restores, the unit restarts automatically with all the previous settings preserved by the memory function.
- For some models, the machine is special designed with Auto-restart function for the open angle of the horizontal louver.Power failure during operation or pressing the ON/OFF button on the remote controller will stop the unit completely.When the power restores or pressing the ON/OFF button on the remote controller again,the unit restarts automatically with all the previous settings including the open angle of the horizontal louver by the memory function.So we strongly suggest that the open angle of the horizontal louver should not be set too small,in case the condensed water forms and drops from the horizontal louver. Press the AUTO/COOL button under the front panel and the open angle of the horizontal louver will be restored to the standard angle when the condensed water forms on the horizontal louver.

10. Lightning or a car wireless telephone operating nearby may cause the unit to malfunction. Disconnect the unit with power and then re-connect the unit with power again. Push the ON/OFF button on the remote controller to restart operation.

Troubleshooting Tips

If one of the following faults occurs, stop the air conditioner immediately, disconnect the power and then connect it in again. If the problem still exists, disconnect the power and contact the nearest customer service center.	
Trouble	OPERATION/RUN indicator or other indicators continue flashing.
	Fuse blows frequently or circuit breaker trips frequently.
	Other objects or water fall into the air conditioner.
	The remote controller won't work or works abnormally.
	If one of the following code appears on the display area : E0,E1,E2,E3.....or P0,P1,P2,P3.....

Malfunctions	Cause	What should be done?
Unit does not start	Power cut	Wait for power to be restored.
	Unit may have become unplugged.	Check that plug is securely in wall receptacle.
	Fuse may have blown.	Replace the fuse.
	Battery in Remote controller may have been exhausted.	Replace the battery.
	The time you have set with timer is incorrect.	Wait or cancel timer setting.
Unit not cooling or heating (Cooling/ heating models only) room very well while air flowing out from the air cond tioner	Inappropriate temperature setting.	Set temperature correctly. For detailed method please refer to "Using remote control" section.
	Air filter is blocked.	Clean the air filter.
	Doors or Windows are open.	Close the doors or windows.
	Air inlet or outlet of indoor or outdoor unit has been blocked.	Clear obstructions away first, then restart the unit.
	Compressor 3 minutes protection has been activated.	Wait.
If the trouble has not been corrected, please contact a local dealer or the nearest customer service center. Be sure to inform them of the detailed malfunctions and unit model.		

Notes: Do not attempt to repair the unit yourself.
Always consult an authorised service provider.

INSTALLATION MANUAL

ROOM AIR CONDITIONER
(Split Wall-Mounted Type)

INSTALLATION PRECAUTIONS

- Please read this installation manual carefully before operating the unit to ensure correct installation.
- If the power cord is damaged, replacement work shall be performed by authorised personnel only.
- Installation work must be performed in accordance with the national wiring standards by authorised personnel only.
- Contact an authorized service technician for repair, maintenance and installation of this unit.
- This appliance is not intended for use by persons(including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by persons responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- All the pictures in the instructions are for explanation purposes only. The actual shape should prevail.
- The design and specifications are subject to change without prior notice for product improvement. Consult with the sales agency or manufacturer for details.

SAFETY PRECAUTIONS

- Please read these safety precautions carefully before installation
- Be sure to follow all the precautions below, they are all important for ensuring safety.

⚠ WARNING	This symbol indicates the possibility of death or serious injury.
⚠ CAUTION	This symbol indicates the possibility of injury or damage to property.

⚠ WARNING

1) Install according to this installation instructions strictly. If installation is defective, it will cause water leakage, electrical shock,or fire.
2) Use the included accessories parts and specified parts for installation. otherwise, it will cause the set to fall, water leakage, electrical shock fire.
3) Install at a strong and firm location which is able to withstand the set s weight. If the strength is not enough or installation is not properly done, the set will drop and cause injury.
4) For electrical work, follow the local national wiring standard, regulation and this installation instructions. An independent circuit and single outlet must be used. If electrical circuit capacity is not enough or defect found in electrical work, it will cause electrical shock fire.
5) Use the specified cable and connect tightly and clamp the cable so that no external force will be acted on the terminal. If connection or fixing is not perfect, it will cause heat-up or fire at the connection.
6) Wiring routing must be properly arranged so that control board cover is fixed properly. If control board cover is not fixed perfectly, it will overheat at connection point of terminal, fire or electrical shock.
7) When carrying out piping connection, take care not to let air substances other than the specified refrigerant go into refrigeration cycle. Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle, explosion and injury.
8) Do not modify the length of the power supply cord or use of extension cord, and do not share the single outlet with other electrical appliances. Otherwise, it will cause fire or electrical shock.

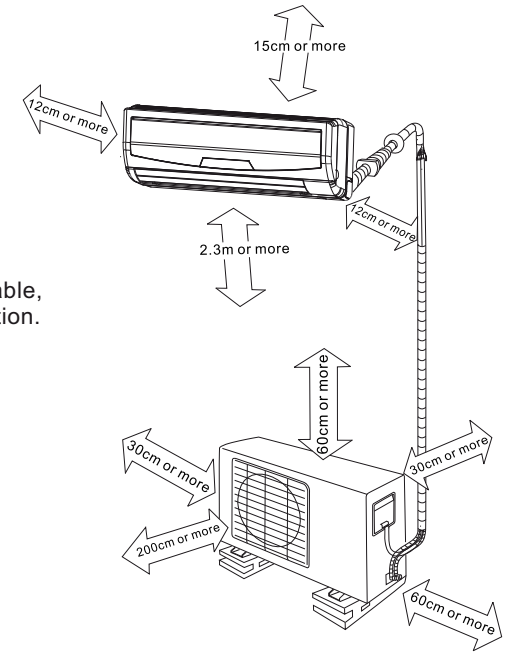
⚠ CAUTION

1) This equipment must be grounded and installed with ground leakage current breaker. It may cause electrical shock if grounding is not perfect.
2) Do not install the unit at place where leakage of flammable gas may occur. In case gas leaks and accumulates at surrounding of the unit, it may cause fire.
3) Carry out drainage piping as mentioned in installation instructions. If drainage is not perfect, water may enter the room and damage the furniture.

SELECT THE BEST LOCATION

Indoor unit

- There should not be any heat source or stream near the unit.
- There should not be any obstacles blocking the air circulation.
- A place where air circulation in the room is good.
- A palce where drainage can be easily done.
- A palce where noise prevention is taken into consideration.
- Do not install the unit near the door way.
- Ensure the spaces indicated by arrows from the wall,ceiling,fence or other obstacles.
- There should not be any direct sunlight. If unavoidable, sunlight prevention should be taken into consideration.



Outdoor unit

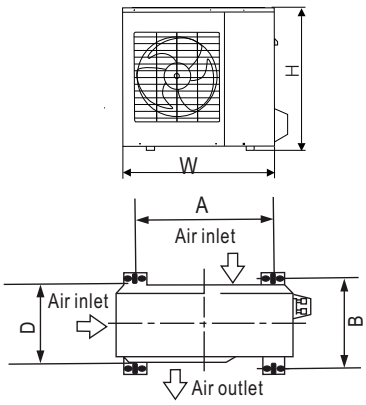
- If an awning is built over the unit to prevent direct sunsight or rain,be careful that heat radiation from the condenser is not obstructed.
- There should not be any animal or plant which could be affected by hot air discharged.
- Keep the spaces indicated by arrow from wall ceiling, fence or other obstacles.
- Do not place any obstacles which may cause a short circuit of the discharged air.

Settlement of outdoor unit

- Anchor the outdoor unit with a bolt and nut ϕ10 or ϕ8 tightly and horizontally on a concrete or rigid mount.

NOTE: The outdoor unit you purchase may be like one of the following. Install the outdoor unit according to the dimension as indicated in the table below:

Outdoor unit dimension mm(WxHxD)	Mounting dimensions	
	A(mm)	B(mm)
700x540x240	458	250
685x430x260	460	276
780x540x250	549	276
760x590x285	530	290
845x700x320	560	335
775x545x310	600	320
670x540x265	481	276



ACCESSORIES

Number	Name of Accessories			Qty
1	Installation Plate			1
2	Clip Anchor			5-8(depending on models)
3	Self-tapping Screw A ST3.9x25			5-8(depending on models)
4	Seal(For cooling & heating models only)			1
5	Drain Joint(For cooling & heating models only)			1
6	Connecting pipe Assembly	Liquid side	Φ6.35	Parts you must purchase. The pipe size differ from appliance to appliance. Consult the technician for the proper size.
			Φ9.52	
		Gas side	Φ9.52	
			Φ12.7	
			Φ16	
7	Remote controller			1
8	Self-tapping Screw B ST2.9x10	optional parts		2
9	Remote controller holder	optional parts		1

NOTE: Except the above parts provided,the other parts needed during installation you must purchase.

1 INSTALLATION PLATE MOUNTING

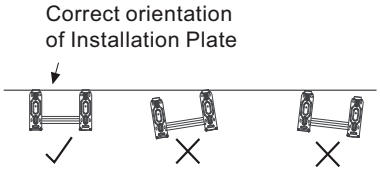
NOTE: The mounting wall is strong and solid enough to prevent it from the vibration.

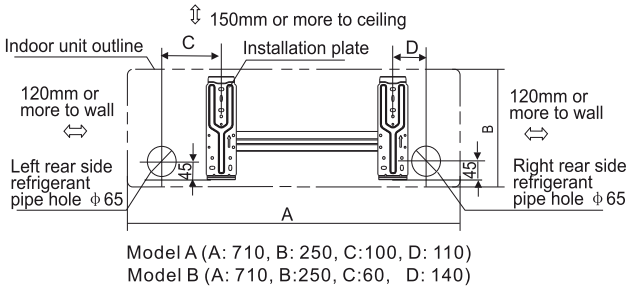
● Fit the Installation Plate

1. Fit the installation plate horizontally on structural parts of the wall with spaces around the installation plate.
2. If the wall is made of brick, concrete or the like, drill five or eight 5mm diameter holes in the wall.Insert Clip anchor for appropriate mounting screws.
3. Fit the installation plate on the wall with five or eight type " A " screws.

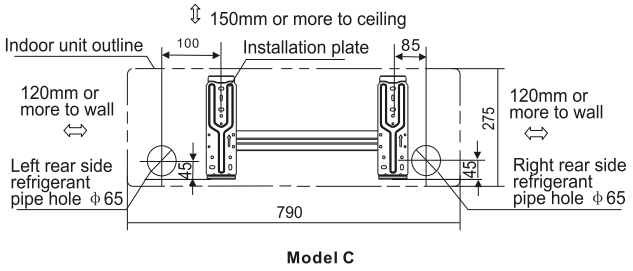
NOTE:

Fit the Installation Plate and drill holes in the wall according to the wall structure and corresponding mounting points on the installation plate. The installation plate provided with the machine differ from appliance to appliance.
(Dimensions are in " mm " unless otherwise stated)

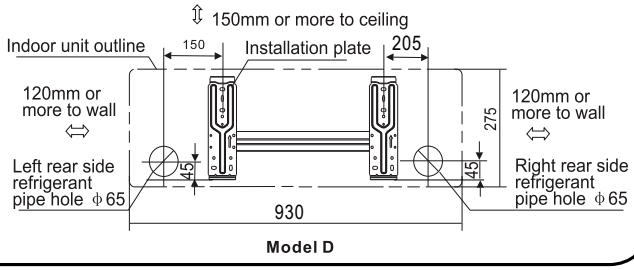




Model A (A: 710, B: 250, C:100, D: 110)
Model B (A: 710, B:250, C:60, D: 140)



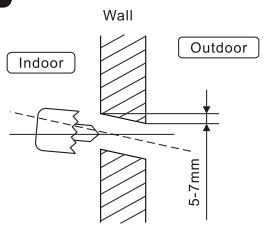
Model C



Model D

2 DRILL A HOLE IN THE WALL

1. Determine hole positions according to left and right side of the installation plate. The hole center is obtained by measuring the distance as shown in the diagram above.
2. Dirll the piping plate hole with ϕ65mm hole-core drill.
3. Drill the piping hole at either the right or the left and the hole should be slightly slanted to the outdoor side.
4. Always take steps to protect the pipe when drilling metal grid,metal plate or the like.



3 CONNECT THE CABLE TO THE INDOOR UNIT

Electrical work

Electric safety regulations for the initial Installation

1. If there is serious safety problem about the power supply, the technicians should refuse to install the air conditioner and explain to the client until the problem is solved.
2. Power voltage should be in the range of 90%~110%of rated voltage.
3. The surge protector and main power switch with a 1.5 times capacity of Max. Current of the unit should be installed in power circuit.
4. Ensure the air conditioner is grounded well.
5. According to the attached Electrical Connection Diagram located on the panel of the outdoor unit to connect the wire.
6. All wiring must comply with local and national electrical codes and be installed by qualified and skilled electricians.
7. An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device(RCD) with the rating of not exceeding 30mA shall be incorporated in the fixed wiring according to the national rule.
8. An individual branch circuit and single receptacle used only for this air conditioner must be available. See the following table for suggested wire sizes and fuse specifications:

Minimum norminal cross-sectional area of conductors:

Rated current of appliance (A)	Nominal cross-sectional area (mm2)
>3 and ≤6	0.75
>6 and ≤10	1
>10 and ≤16	1.5
>16 and ≤25	2.5

NOTE:

The cable size and the current of thefuse or switch are determined by the maximum current indicated on the nameplate which located on the side panel of the unit. Please refer to the nameplate before selecting the cable, fuse and switch.

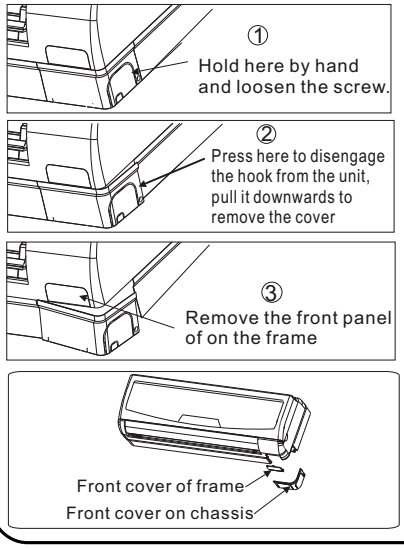
Connect the cable to the indoor unit

NOTE: Before performing any electrical work, turn off the main power to the system.

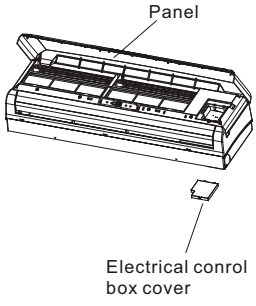
1. For model A, first remove the front cover on chassis by loosening the screw, then remove the front cover of frame as shown below. For model B, just open the panel up, then remove the electrical control box cover by loosening the screw.
3. The indoor power cord type is H05VV-F or H05V2V2-F, the outdoor power cord and interconnected cord type is H07RN-F. Ensure the colour of wires of outdoor unit and the terminal Nos. are the same to the indoor's respectively.
5. Wrap those cables not connected with terminals with insulation tapes, so that they will not touch any electrical components. Secure the cable onto the control board with the cord clamp.

NOTE: If used as MONO unit, for the standby control needs, the cross section area of cable connected to L(1), 1, 2(N) must be sufficient for the maximum system current. The maximum system current is equal to the sum of indoor unit and outdoor unit rated current. If used as MULTI unit, L(1) on the terminal block does not need to be connected.

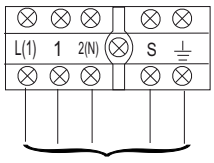
Model A



Model B



Terminal block ofi ndoor unit

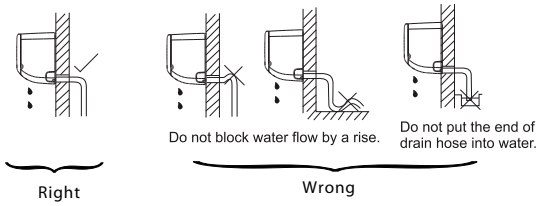


To outdoor unit

4 CONNECTIVE PIPE AND DRAINAGE INSTALLATION

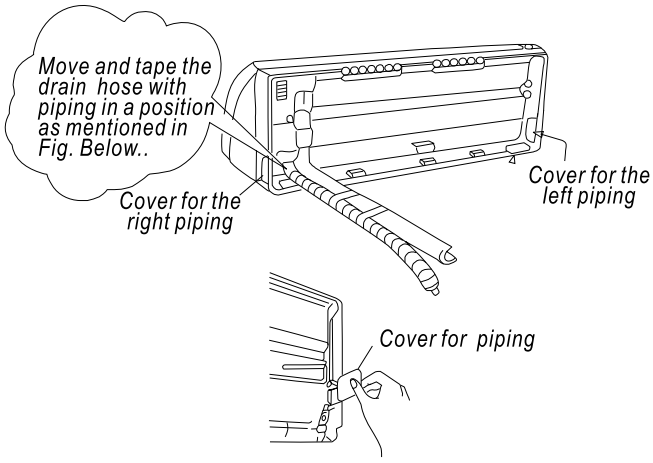
Drainage

1. Run the drain hose sloping downward. Do not install the drain hose as illustrated in wrong figures.
2. When connecting extension drain hose, insulate the connecting part of extension drain hose with a shield pipe, do not let the drain hose slack.



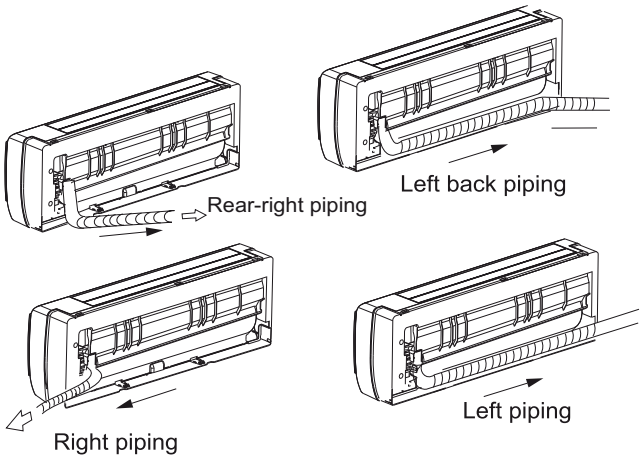
Connective pipe installation

1. For the left-hand and right-hand piping, remove the pipe cover from the side panel.
2. For the rear-right-hand and rear-left-hand piping, install the piping as shown.
3. Bundle the tubing, connecting cable, and drain hose with tape securely, evenly as shown in Figure on the right.
   - Because the condensed water from rear of the indoor unit is gathered in ponding box and is piped out of room. Do not put anything else in the box.



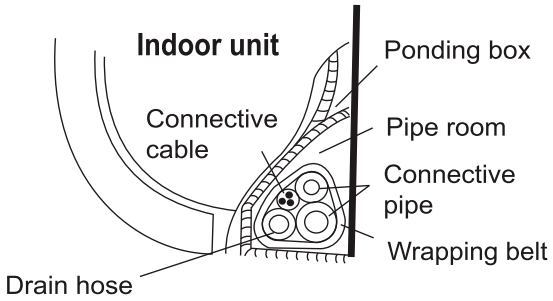
CAUTION

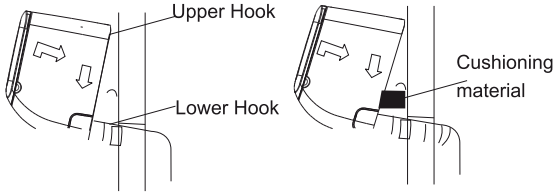
- Connect the indoor unit first, then the outdoor unit.
- Do not allow the piping to let out from the back of the indoor unit.
- Be careful not to let the drain hose slack.
- Heat insulation should be done to the extension drain hose of indoor unit.
- Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause drain pan to overflow inside the unit.
- Never intercross nor intertwist the power wire with any other wiring.



Indoor unit installation

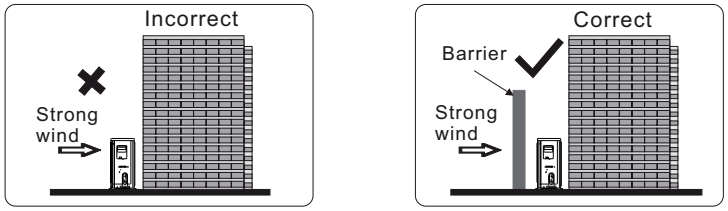
1. Pass the piping through the hole in the wall.
2. Hook the indoor unit onto the upper portion of installation plate(Engage the indoor unit with the upper edge of the installation plate). Ensure the hooks are properly seated on the installation plate by moving it in left and right.
3. Piping can easily be made by lifting the indoor unit with a cushioning material between the indoor unit and the wall. Get it out after finish piping.
4. Press the lower left and right side of the unit against the installation plate until hooks engages with the their slots.





1 OUTDOOR INSALLATION PRECAUTION

- Install the outdoor unit on a rigid base to prevent increasing noise level and vibration.
- Determine the air outlet direction where the discharged air is not blocked.
- In the case that the installation place is exposed to strong wind such as a seaside, make sure the fan operating properly by putting the unit lengthwise along the wall or using a dust or shield plates.
- Specially in windy area, install the unit to prevent the admission of wind. If need suspending installation, the installation bracket should accord with technique requirement in the installation bracket diagram. The installation wall should be solid brick, concrete or the same intensity construction, or actions to reinforce, damping supporting should be taken.
- The connection between bracket and wall, bracket and the air conditioner should be firm, stable and reliable.
- Be sure there is no obstacle which block radiating air.

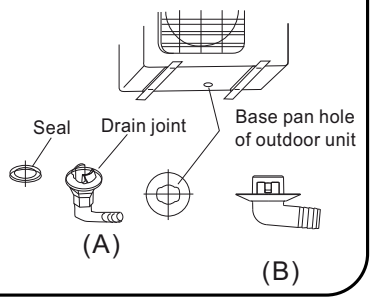


2 DRAIN JOINT INSTALLATION

NOTE: The drain joint is slightly different according to the different outdoor unit.

For the drain joint with the seal(Fig.A), first fit the seal onto the drain joint, then insert the drain joint into the base pan hole of outdoor unit, rotate 90° to securely assemble them.

To install drain joint as shown in Fig.B, insert the drain joint into the base pan hole of outdoor unit until it remains fixed with a clicking sound. Connecting the drain joint with an extension drain hose (Locally purchased), in case of the water draining off the outdoor unit during the heating mode.

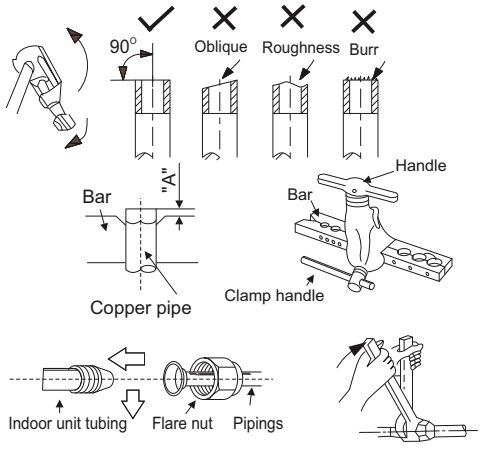


3 REFRIGERANT PIPE CONNECTION

Flaring

1. Cut a pipe with a pipe cutter.
2. Put flare nuts on pipe/tube having completed burr removal and flare the pipe.
3. Firmly hold copper pipe in a die in the dimension shown in the table below.

Outer diam. (mm)	A(mm)	
	Max.	Min.
ϕ 6.35	1.3	0.7
ϕ 9.52	1.6	1.0
ϕ 12.7	1.8	1.0
ϕ 16	2.2	2.0



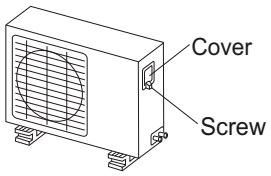
Tightening connection

- Align pipes to be connected.
- Sufficiently tighten the flare nut with fingers, and then tighten it with a spanner and torque wrench as shown.
- Excessive torque can break nut depending on installation conditions.

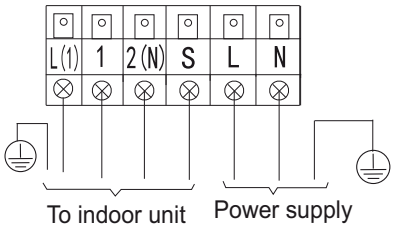
Outer diam.	Tightening torque(N.cm)	Additional tightening torque(N.cm)
ϕ 6.35mm	1500 (153kgf.cm)	1600 (163kgf.cm)
ϕ 9.52mm	2500 (255kgf.cm)	2600 (265kgf.cm)
ϕ 12.7mm	3500 (357kgf.cm)	3600 (367kgf.cm)
ϕ 16mm	4500 (459kgf.cm)	4700 (479kgf.cm)

4 CONNECT THE CABLE TO THE OUTDOOR UNIT

1. Remove the electrical control board cover from the outdoor unit by loosening the screw.
2. Connect the connective cables to the terminals as identified with their respective matched numbers on the terminal block of indoor and outdoor units.
3. Secure the cable onto the control board with the cord clamp.
4. To prevent the ingress of water, form a loop of the connective cable as illustrated in the installation diagram of indoor and outdoor units.
5. Insulate unused cords (conductors) with PVC-tape. Process them so they do not touch any electrical or metal parts.



Terminal block of outdoor unit



5 AIR PURGING AND TEST OPERATION

1. Air purging

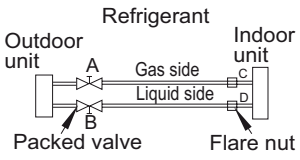
- The indoor unit and tubing between the indoor and outdoor unit must be leak tested and evacuated to remove any noncondensables and moisture from the system.
- Check that each tube(both liquid and gas side tubes) between the indoor and outdoor units have been properly connected and all wiring for the test run has been completed.
- Pipe length and refrigerant amount:

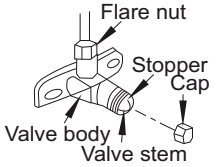
Connective pipe length	Air purging method	Additional amount of refrigerant to be charged	
Less than 5m	Use vacuum pump	———	
More than 5m	Use vacuum pump	Liquid side: Φ6.35mm R22: (Pipe length-5)x30g/m R410A: (Pipe length-5)x20g/m	Liquid side: Φ9.52mm: R22: (Pipe length-5)x60g/m R410A: (Pipe length-5)x40g/m

- For the R410A refrigerant model, make sure the refrigerant added into air conditioner is liquid form in any cases.
- When relocating the unit to another place, using vacuum pump to perform evacuation.

CAUTION

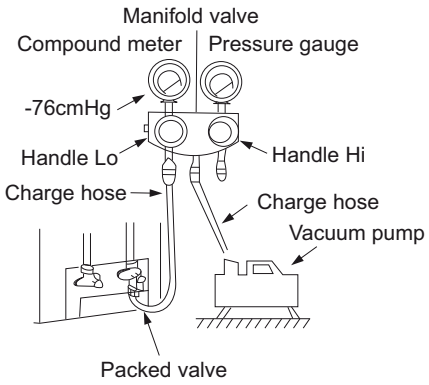
- Open the valve stem until it hits against the stopper. Do not try to open it further.
- Securely tighten the valve stem cap with a spanner or the like.
- Valve stem cap tightening torque. See Tightening torque table.





2. When using the Vacuum Pump

1. Completely tighten the flare nuts, A, B, C, D, connect the manifold valve charge hose to a charge port of the packed valve on the gas pipe side.
2. Connect the charge hose connection to the vacuum pump.
3. Fully open the handle Lo of the manifold valve.
4. Operate the vacuum pump to evacuate. After starting evacuation, slightly loose the flare nut of the packed valve on the gas pipe side and check that the air is entering. (Operation noise of the vacuum pump changes and a compound meter indicates 0 instead of minus)
5. After the evacuation is complete, fully close the handle Lo of the manifold valve and stop the operation of the vacuum pump.
   - Make evacuation for 15 minutes and more and check that the compound meter indicates -76cmHg(-1.0x10^{5}Pa).
6. Turn the stem of the packed valve B about 45° counter-clockwise for 6~7 seconds after the gas coming out, then tighten the flare nut again. Make sure the pressure display in the pressure indicator is a little higher than the atmosphere pressure.
7. Remove the charge hose from the Low pressure charge hose.
8. Fully open the packed valve stems B and A.
9. Securely tighten the cap of the packed valve.

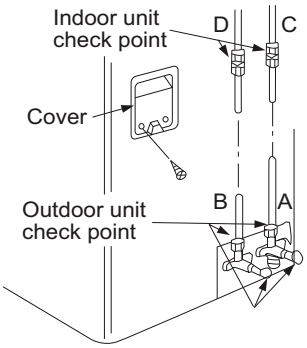


3. Safety and leakage check

1. Soap water method:
   Apply a soap water or a liquid neutral detergent on the indoor unit connections and outdoor unit connections by a soft brush to check for leakage of the connecting points of the piping. If bubbles come out, it indicates that the pipes have leakage.
2. Leak detector
   Use the leak detector to check for leakage.

CAUTION

A: Lo packed valve B: Hi packed valve
C and D are ends of indoor unit connection.

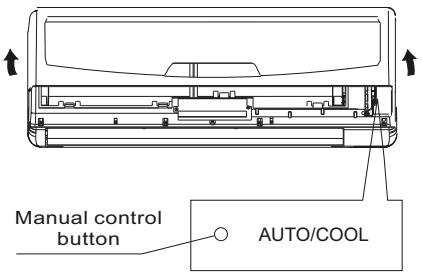


4. Test running

Perform test operation after completing gas leak check at the flare nut connections and electrical safety check.

- Check that all tubing and wiring have been properly connected.
- Check that the gas and liquid side service valves are fully open.

1. Connect the power, press the ON/OFF button on the remote controller to turn the unit on.
2. Use the MODE button to select COOL, HEAT, AUTO and FAN to check if all the functions works well.
3. When the ambient temperature is too low(lower than 17°C), the unit cannot be controlled by the remote controller to run at cooling mode, manual operation can be taken. Manual operation is used only when the remote controller is disable or maintenance necessary.
   - Hold the panel sides and lift the panel up to an angle until it remains fixed with a clicking sound.
   - Press the Manual control button to select the AUTO or COOL, the unit will operate under Forced AUTO or COOL mode(see User Manual for details).
4. The test operation should last about 30 minutes.



REMOTE CONTROLLER

Please read this Owner's Manual carefully before operation.
Save this manual in a safe place for future reference.

3. Set the starting & stopping time

3.1 Push the TIMER ON button, the remote controller will show TIMER ON, the last set time for START operation and the signal "h" will be shown on the DIGITAL display area. You are now ready to readjust the TIMER ON to start the operation.

3.2 Push the TIMER ON button again to set the time you want to start the operation.

3.3 Push the TIMER OFF button, the remote controller will show TIMER OFF, the last set time for STOP operation and the signal "h" will be shown on the DIGITAL display area. You are now ready to reset the time to STOP operation.

3.4 Push the TIMER OFF button again to set the time you want to stop the operation.

3.5 After setting the TIMER, there will be a one-half second delay before the remote controller transmits the signal to the Air Conditioner. Then , after approximately another 2 seconds, the signal "h" disappears and the set temperature will re-appear on the digital display.

Change the TIMER

- To change the TIMER ON/OFF time, just press the corresponding TIMER button and reset the time.
- To cancel the TIMER ON/OFF setting, just adjust the TIMER time to 0:00.

⚠NOTE

The setting time is relative time. That is the time set is based on the delay of the current time.

Warning

1. Be sure there are no obstacles between the remote controller and the receiver of indoor unit otherwise the air conditioner will not work.
2. Keep the Remote Controller away from any liquids.
3. Protect the remote controller from the high temperatures and exposure to radiation.
4. Keep the indoor receiver out of direct sunlight or the Air Conditioner may malfunction.
5. Keep Remote Controller away from EMI(Electro-Magnetic Interference) supplied by other household appliances.

Remote Controller Specification

Model	R51M/(C)E, R51M/BG(C)E, RG51M2/(C)E, RG51A/(C)E, RG51M3/(C)E, RG51M3/BG(C)E, RG51M8/(C)E,RG51M9/(C)E.
Rated Voltage	3.0V(Alkaline dry batteries LR03×2)
Lowest Voltage of CPU Emitting Signal	2.0V
Transmission Distance	8m (when using 3.0 voltage, it Gets 11m)
Environment	-5℃~ 60℃

Performance Features

1. Operating Mode: AUTO、COOL、 DRY、 HEAT(Cooling only model without) and FAN .
2. Timer Setting Function in 24 hours.
3. Indoor Setting Temperature Range : 17℃~30℃.
4. Full function of LCD (Liquid Crystal Display)
5. Back light emitting(only available for R51M(3)/BG(C)E models)

Features of the Remote controller buttons

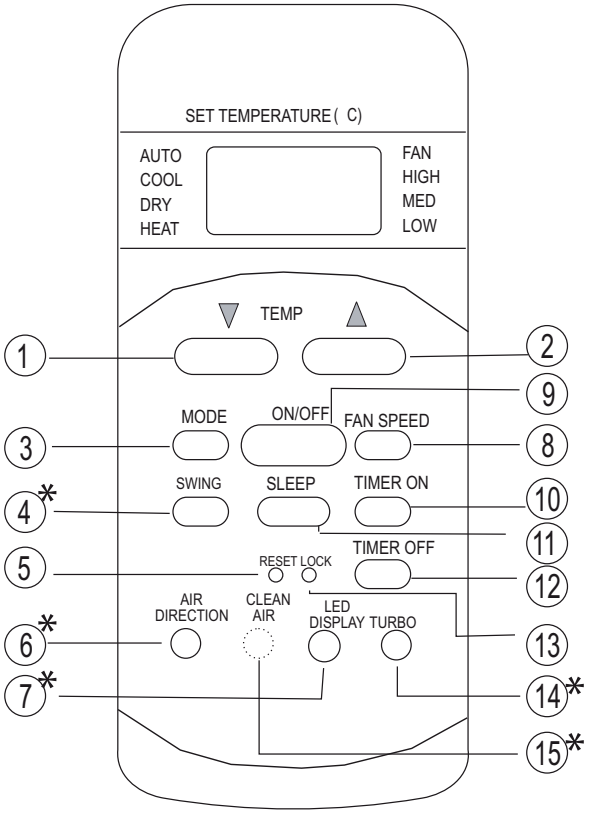


Fig. 1

NOTE:
*: Indicates optional button.

14* and 15* buttons are not available for M odels RG51M2/(C)E.

7*, 14* and 15* buttons are not available for Models RG51M3/(C)E and RG51M3/BG(C)E.

15* button is not available for Models R51M/(C)E and R51M/BG(C)E.

4*,6*,7*,14* ,15* buttons are not available for Models RG51M9/(C)E.

6*,7* ,14* ,15* buttons are not available for Models RG51M8/(C)E.

① TEMP Button ▼ Push this button to decrease the indoor temperature setting.

② TEMP Button ▲ Push this button to increase the indoor temperature setting .

③ MODE Selection Button: Each time the button is pressed, the operation mode is shifted in the direction of the arrow:



⚠ NOTE: COOL only model has no HEAT feature.

④ SWING Button: Push this switch button to activate auto swing feature of the horizontal louver. Push it again to stop.

⑤ RESET Button: When you press the recessed RESET button, all current settings are cancelled and the control will return to the initial settings.

⑥ AIR DIRECTION Button: Press this button to change the swing angle of the louver. The swing angle of the louver is 6° for each press. When the louver swing at a certain angle which would affect the cooling and heating effect of the air conditioner, it would automatically change the swing direction . No symbol will appear in the display area when press this button. (Not applicable to units without this function).

⑦ LED DISPLAY Button: Press this button to clear the digit display in the air conditioner, press it again to activate it (Not available for the units without LED display window).

⑧ FAN SPEED Button: Used to select the Fan Speed in four steps- AUTO、LOW 、MED or HIGH. Each time the button is pressed, the fan speed mode is shifted.

⑨ ON/OFF Button: Push this button to start operation, push the button again to stop operation.

⑩ TIMER ON Button: Press this button to initiate the auto-on time sequence. Each press will increase the auto-timed setting in 30 minutes increments. When the setting time displays 10, each press will increase the auto-timed setting 60 minutes increments. To cancel the auto-timed program, simply adjust the auto-on time to 0.0.

⑪ SLEEP Button: Press this button to go into the Energy-Saving operation mode. Press it again to cancel. This function is only can be used on COOL, HEAT and AUTO mode and maintain the most comfortable temperature for you.

⑫ TIMER OFF Button: Press this button to initiate the auto-off time sequence. Each press will increase the auto-timed setting in 30 minutes increments. When the setting time displays 10, each press will increase the auto-timed setting 60 minutes increments. To cancel the auto-timed program, simply adjust the auto-off time to 0.0.

⑬ LOCK Button: When you press the recessed LOCK button, all current settings are locked in and the remote controller does not accept any operation except that of the LOCK. Press again to cancel the LOCK mode.

⑭ TURBO Button: Push this button to activate/cancel the Turbo function which enables the unit to reach the preset temperature in the shortest time.On cooling mode, the unit will blow strong cooling air with super high fan speed. On heating mode (applicable to the unit adopts PTC only), the PTC will bring fast heating operation.

⑮ CLEAN AIR Button(on some models): When push this button, the Ionizer or Plasma Dust Collector(depending on models) is energized and will help to remove pollen and impurities from the air.

Indicators on Display Panel

Display Panel

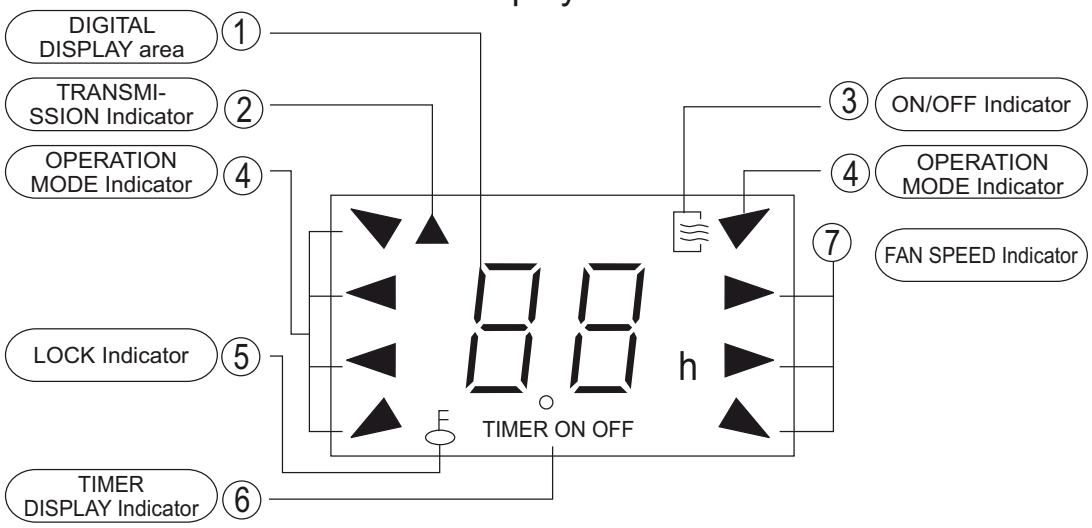


Fig. 2

① DIGITAL DISPLAY area: This area will show the set temperature and, if in the TIMER mode, will show the ON and OFF settings of the TIMER. If in the FAN mode, nothing is appeared.

② TRANSMISSION Indicator: This indicator flashes one time when remote controller transmits signals to the indoor unit.

③ ON/OFF Indicator: This symbol appears when the unit is turned on by the remote controller, and disappear when the unit is turned off.

④ OPERATION MODE Indicator: When press the MODE button, it shows the current operating mode -- "AUTO", "COOL", "DRY", "HEAT"(Cooling only model without) , or "FAN" mode.

⑤ LOCK Indicator: LOCK display is displayed by pushing the LOCK button. Push the LOCK button to clear display.

⑥ TIMER DISPLAY Indicator: This display area shows the settings of the TIMER. That is, if only the starting time of operation is set, it will display the TIMER ON. If only the turning off time of operation is set, it will display the TIMER OFF. If both operations are set, it will show TIMER ON-OFF which indicates you have chosen to set both the starting time and off time.

⑦ FAN SPEED Indicator: Press the FAN SPEED button to select the desired fan speed setting (Auto-Low-Med-High). You selection will be displayed in the LCD window except the Auto fan speed.

⚠ NOTE: All signs shown in the Fig.2 is for the purpose of clear presentation. But during the actual operation only the relative functional signs are shown on the display panel.

Operating the Remote Controller

Install/Replace Batteries

The Remote Controller uses two alkaline dry batteries(LR03X2).

1. To install the batteries, slide the back cover of the battery compartment and install the batteries according the direction (+and -)shown on the Remote Controller.
2. To replace the old batteries, use the same method as mentioned above.

⚠ NOTE

1. When replacing batteries, do not use old batteries or a different type battery. This may cause the remote control to malfunction.
2. If you do not use the remote controller for several weeks remove the batteries. Otherwise battery leakage may damage the remote controller.
3. The average battery life under normal use is about 6 months.
4. Replace the batteries when there is no answering beep from the indoor unit or if the Transmission Indicator light fails to light.
5. Do not dispose batteries as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

AUTOMATIC OPERATION

1. Use the MODE button to select AUTO.
2. Push the TEMP button to set the desired room temperature . The most comfortable temperature settings are between 21 C to 28°C.
3. Push the ON/OFF button to start the air conditioner. The OPERATION lamp on the display panel of the indoor unit lights. The FAN SPEED is automatically set and there are no fan speed indicators shown on the display panel of the remote controller.
4. Push the ON/OFF button again to stop the unit operation.

▲ NOTE

1. In the AUTO mode, the air conditioner can logically choose the mode of COOL, FAN and HEAT by sensing the difference between the actual ambient room temperature and the set temperature on the remote controller.
2. If the AUTO mode is not comfortable for you, the desired mode can be selected manually.

COOL/ HEAT (Cooling only model without) and FAN Operation

1. If the AUTO mode is not comfortable, you may manually over-ride the settings by using COOL, HEAT or FAN modes.
2. Push the TEMP button to set the desired room temperature. When in COOLING mode, the most comfortable settings are 21 C or above. When in HEATING mode, the most comfortable settings are 28℃ or below.
3. Push the FAN SPEED to select the FAN mode of AUTO, HIGH, MED or LOW.
4. Push the ON/OFF button, the operation lamp lights and the air conditioner start to operate as your settings. Push the ON/OFF button again to stop this unit operation.

⚠ NOTE

- The FAN mode can not be used to control the temperature. While in this mode, only steps 1 、3 and 4 may be performed.

DRY Operation

1. Push the MODE button to select DRY.
2. Push the TEMP button to set the desired temperature from 17℃ to 30℃.
3. Push the ON/OFF button, the OPERATION lamp lights and the air conditioner starts to operate in DRY mode at LOW fan speed. Push the ON/OFF button again to stop this unit operation.

⚠ NOTE

Due to the difference of the set temperature of the unit and the actual indoor temperature, the Air Conditioner when in DRY mode will automatically operate many times without running the COOL and FAN mode.

TIMER Operation

Push TIMER ON button to set the auto- on time and TIMER OFF button to set the auto-off time.

1. To set the starting time.

1.1 Push the TIMER ON button, then the remote controller shows TIMER ON , the last set time for the starting operation and the signal "h" will be shown on the DIGITAL DISPLAY area. You are now ready to reset the time to START the operation.

1.2 Push the TIMER ON button again to set desired unit start time.

1.3 After setting the TIMER ON ,there will be a one-half second delay before the remote controller transmits the signal to the air conditioner. Then, after approximately another 2 seconds, the signal "h" disappears and the set temperature will re-appear on the digital display.

2. To set the stopping time.

2.1 Push the TIMER OFF button and the remote controller will show TIMER OFF, the last set time for the stopping operation and the signal "h" will be shown on the DIGITAL DISPLAY area. You are now ready to reset the time of the STOP operation.

2.2 Push the TIMER OFF button again to set the time you want to stop the operation.

2.3 After setting the TIMER OFF ,there will be a one-half second delay before the remote controller transmits the signal to the air conditioner. Then, after approximately another 2 seconds, the signal "h" disappears and the set temperature will re-appear on the digital display.

MUNDOCLIMA®

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